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Amendment dated November 26, 2004
Reply to Office Action of August 25, 2004

- REMARKS/ARGUMENTS -

Claims 1, 2, 4 to 11, 13 to 17 and 24 to 36 are now in the application.

The drawings were objected to, as failing to comply with 37 CFR 1.84(b)(5) because they did not include the following reference signs mentioned in the description: 22, B3, B4 and 54.

A corrected drawing sheet, in compliance with 37 CFR 1.121(d), is submitted herewith for the Examiner's consideration. Figure 2 has been amended to add reference signs 22, B3, B4 and 54.

The drawings were further objected to, as failing to comply with 37 CFR 184(b)(5) because they included the following reference characters not mentioned in the description: SO and S4 of Figure 5.

Figure 5 has been amended to replace SO and S4 by 50 and 54. Figure 5 is now in compliance with the description. Two new sheets of drawings, labelled "REPLACEMENT SHEET" are submitted herewith for the Examiner's consideration.

The Examiner's objection to claim 3 is no longer applicable, in view of the cancellation of claim 3.

Claims 1 through 5 and 16 stand rejected under 35 U.S.C. 102(b), as being anticipated by Moschetti ('875).

Claims 15, 24 and 27 stand rejected under 35 U.S.C. 103(a), as being unpatentable over Moschetti, in view of Jönsson ('479).

Moschetti does not disclose any detail as to the construction of his spraying head and, thus, the Examiner had to rely on Jönsson to justify his rejection of claims 15, 24 and 27.

Although Jönsson discloses a spray gun, it is respectfully submitted that it could not be used to spray fast setting lining materials having very rapid polymerization (less than 30 seconds). Jönsson's mixing chamber 45 would become rapidly clogged by the fast setting lining material after each use, because, according to Jönsson, nothing extends into the mixing chamber to purge the same after a spraying operation has been completed. The inlets of

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Jönsson's mixing chamber 45 are closed by a non-return valve 25 and the engagement of tube 23 against a valve seat 24 at the inner end of the mixing chamber 45. Jönsson clearly lacks any male member, which could be introduced into the mixing chamber 45 to fill the internal volume thereof and, thus, purge the mixing chamber from its content once the spraying operation has been completed. The Applicant's spray source construction, as claimed in amended claim 1, is thus clearly advantageous over Jönsson, as it provides the required structure to prevent the lining mixture from clogging the mixing chamber after each use of the device. It is also respectfully submitted that the part in which the mixing chamber 45 is defined is not movable.

Therefore, in view of the foregoing, independent claim 1 and the claims depending thereon are clearly patentable over the cited references.

Regarding independent claim 24, it is respectfully submitted that Jönsson's actuator 40 is axially aligned with the valves 14 and 15 and the mixing chamber 45. As a result, Jönsson's spray gun is relatively long and, thus, if it is mounted perpendicularly at the end of Moschetti's arm 5, as suggested by the Examiner, Moschetti's apparatus could not be used in conduits having a small internal diameter because the nozzle would extend too close to the inner surface of the conduits. The combination of Jönsson and Moschetti does not teach or suggest orienting the actuator at an angle to the mixing chamber and the spray direction. The axis of Jönsson's mixing chamber extends axially of the actuator and, thus, the spraying direction is in line with the actuator orientation. Jönsson does not disclose or suggest any means that could be used to permit the actuator 40 from being oriented at an angle to the mixing chamber 45.

In view of the foregoing, amended independent claim 24 is clearly patentable over Jönsson and Moschetti.

Claims 18 to 23 have been cancelled and, thus, the Examiner's objections with respect thereto are no longer applicable.

Claims 25 to 27 depend from independent claim 24 and are patentable, at least for the reasons set forth above with respect to independent claim 24.

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New claim 28 generally results from the combination of former independent claim 1 and dependent claim 6, which has been indicated as allowable by the Examiner. New claims 29 to 33 depend from new claim 28 and are also considered patentable.

New independent claim 34 results from the combination of former claims 24 and 25. Claim 25 has been indicated as allowable and, therefore, new claim 34 is believed patentable.

New dependent claims 35 and 36 generally correspond to dependent claims 26 and 27.

Claim 9 has been slightly amended to set forth that the actuator is arranged at right angles relative to a spraying direction of the device. This feature is not disclosed or suggested in any of the cited references.

Claim 13 has been made dependent on claim 10, in view of the cancellation of claim 12.

Claim 15 has been slightly amended to set forth that the arm is offset from the central rotation axis of the device. None of the cited references discloses a spray source including an arm mounted in parallel to a rotation axis but spaced therefrom.

In the event that there any further questions concerning the present amendment or the application in general, the Examiner is respectfully urged to telephone the undersigned so that prosecution of this application may be expedited.


Respectfully submitted,

Pierre PARÉ

By:

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Date


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Encls. - 2 Replacement Sheets of Drawings